

MEDICINE TODAY

Current comment on medical progress, discussion of selected topics from recent books or periodic literature, by contributing members. Every member of the California Medical Association is invited to submit discussion suitable for publication in this department. No discussion should be over five hundred words in length.

Medicine

Pellagra.—The cause of pellagra is one of the subjects of medicine about which there is considerable controversy, but in the light of the more recent research the nutritional theory seems to be the most probable.

It is believed that inasmuch as the disease is undoubtedly on the increase in California, a short discussion of it will not be untimely.

During the ten years, 1920 to 1929 inclusive, 449 cases of the disease have been reported to the California State Department of Health.

While this number of cases is not very large as compared with other diseases, the fact that it was more than four and one-half times more prevalent in 1929 than in 1920, should certainly stimulate our interest.

The following is a list of cases as reported year by year:

1920.....	16
1921.....	21
1922.....	32
1923.....	42
1924.....	38
1925.....	63
1926.....	58
1927.....	45
1928.....	61
1929.....	73

This list is probably, to a large extent, made up of cases that have occurred in institutions and public health agencies throughout the state. There unquestionably have been many more that were unrecognized or unreported in private practice.

Increased population alone does not account for the increase, for the population in 1920 was 3,426,861 and was approximately only 4,556,000 in 1928. In 1920 there was reported one case for approximately every 215,000 inhabitants, while in 1929 the ratio was about one reported for every 62,500.

Evidently there is something in the present economical, nutritional or hygienic condition of our population that is more marked than it was in 1920.

In the September 2, 1927, issue of the United States Public Health Report, Goldberger reiterated his nutritional theory and gave a short description of the disease.

He stated that the disease was in no way communicable; that no germ had been found and that experiments in which inoculation with blood, saliva and other body discharges from pellagrins, failed to transmit the disease. On the other hand, he found that restricting the diet in certain proteid foods in healthy individuals did produce

the chain of symptoms which we know as pellagra.

He believed that these symptoms were caused by the deficiency of some vitamin or vitamins which he designated as P-P (pellagra-preventing) vitamin. In his experiments he found that such foods as beans, peas, lean meat, milk and powdered yeast were rich in P-P, particularly the latter. Fruits, potatoes, turnips, string-beans, tomatoes, cabbage and spinach also contain P-P but in smaller amounts.

During the past four or five years, in our work at the Alameda County Health Center, we have been struck by the great increase in the number of pellagrins who are alcoholics. The histories of these individuals show they had been well until they went upon a prolonged spree and that the first symptoms of the disease had appeared immediately thereafter. How much of this condition can be attributed to alcohol and how much to the lack of proper diet during the spree is conjectural.

For prevention and treatment of the disease, Goldberger advocated milk (about two pints daily); lean meat (beef, mutton, pork, fish, fowl), one-half pound per day; and powdered yeast, one ounce per day. This latter, when killed, is richer in P-P vitamin than any other substance known. The dry yeast should be powdered and then boiled in water for one minute before using.

During an actual or impending attack one should begin with foods rich in P-P and at the same time within the capacity of digestion. It is best to begin with powdered yeast (prepared as noted above); milk (sweet or buttermilk); lean meat (fresh meat juice, scraped beef); egg yolk; tomato juice (fresh or canned); and bean or pea puree. As improvement occurs increasing amounts of solid foods may be added.

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Eye

Foreign Bodies in the Cornea.—All cases of foreign body in the cornea are potentially dangerous, and should be treated by an oculist if possible. The first step in treatment is to find the foreign body, and for this purpose, perfect light, preferably a Hammer lamp, and magnification are essential. A Berger loupe is usually adequate, but in some cases a slit lamp and corneal microscope may be necessary. The foregoing would seem obvious, but every oculist has seen cases in which very strenuous efforts had been

made to remove a spot of pigment from the iris, under the impression that it was a speck in the cornea.

Anesthesia must be complete, since it is impossible to hold one's eye still, when it is painfully traumatized by a spud. My own preference is a drop or two of cocaine solution five per cent, followed by holocain solution one per cent, at intervals of two minutes. Cocaine alone tends to dry the cornea, increasing the danger of ulceration, and holocain is very irritating to an inflamed eye. Some antiseptic, such as mercurochrome, which is always available, should be instilled into the conjunctival sac, and the eye irrigated in a moment or two.

Again light and magnification are essential. The patient should be directed to look at something with the uninjured eye, so that neither eye will move. An attempt should be made at removal with a bit of moist cotton, on a toothpick applicator. Failing in this a spud should be used, the pattern to be decided by individual preference. The lids of the injured eye should be held by pressure of the thumb and finger of the left hand. The spud is held by the right hand, and the little finger rested on the patient's cheek or nose to secure steadiness. The point of the spud should be inserted beneath the edge of the foreign body, to lift it out. Every bit of it should be removed, and in the frequent cases where the surrounding tissue is stained or burned, this, too, should be taken out with a corneal bur.

After-treatment is very important. A drop of antiseptic should be instilled, and in all but the mildest cases, the eye should be bandaged for at least twenty-four hours, or until it is quiet. This protects the damaged cornea, and minimizes the danger of ulcer. Patients appreciate holocain one per cent either solution or ointment, to keep the eye comfortable after the anesthetic wears off.

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Dermatology

Thallium Acetate.—Several years ago thallium was used for its antihydrotic action in combating night sweats of tuberculosis, and in many cases so treated loss of hair was noted. In 1900 Buschke, in experiments upon mice, rats, guinea pigs, apes, and rabbits, obtained the same results. By giving the animals two homeopathic tablets of thallium acetate dissolved in water and mixed with their food, he observed that the hair fell out in a few weeks, first in patches, later totally, and that animals could be kept naked by suitable feeding without there occurring any severe toxic disturbances.

According to him, the vibrissae, the sensitive hairs of the nose and face, were never affected with alopecia by thallium, because these hairs differ from the other hairs on the body, not only anatomically, but also in function, and are connected with the central nervous system directly;

while the other hairs are under the influence of the sympathetic system. This can be demonstrated by stimulation of these nerves or by their section.

If these entirely naked animals were fed larger doses of the drug, growth stopped, or remained far behind others, sexual impulse ceased or failed to develop, psychic disturbances occurred, and altogether they presented a cretinoid appearance.

From these and other observations, he concluded that its action was due to some injury to the endocrine apparatus as well as to the sympathetic nervous system with which it is so closely bound up. Owing to this epilating action which the drug exerts, it has been used rather extensively during the past three years in the treatment of ringworm and favus infection of the scalp in children. In many instances it has supplanted the use of x-ray in producing the complete temporary alopecia, so necessary to the rapid cure of these diseases. Not that the epilation produced by x-ray is not just as efficacious or perhaps more so than that produced by thallium, but its use requires expensive apparatus and special training, neither of which are possessed by other than the dermatologist as a rule. Thallium, on the other hand, is inexpensive, a large number of children can be treated in a short time (a distinct advantage in orphanages, etc.), and it can be used by the general practitioner.

Before using it the clinical diagnosis should be confirmed by a microscopical examination of the infected hair, and the urine examined to be sure of the absence of albumin (thallium is excreted by the kidneys, and they are especially liable to injury by the toxic elements in the drug). The child is then carefully weighed without clothing. For each kilogram of body weight, eight milligrams of thallium acetate dissolved in peppermint water are given by mouth at one dose (it is tasteless). The hair begins to fall in about eight days and, when successful, alopecia is complete by the twenty-first day. The epilation is spontaneous in about 50 per cent of the cases, and in the others it must be completed by extracting the loose hairs by means of adhesive strips, which is entirely painless.

The hair begins to grow again in about four weeks and in the interval the scalp should be painted with tincture of iodine daily and a 10 per cent sulphur ointment also applied daily. In three months regeneration is nearly complete.

Toxic symptoms, such as pains in lower limbs (peripheral neuritis), some loss of appetite and an occasional headache appear in a few cases. These are promptly relieved by rest in bed.

Thallium should not be used for this purpose in children approaching puberty because of its toxicity in such large doses.

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